DOCUMENT RESUME

ED 427 576 HE 031 767

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TITLE Outcomes of Teaching Improvement Programs for Faculty. ASHE Annual Meeting Paper.
PUB DATE 1998-11-00
NOTE 28p.; Paper presented at the Annual Meeting of the Association for the Study of Higher Education (23rd, Miami, FL, November 5-8, 1998).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *College Faculty; *College Instruction; Curriculum Design; Educational Attitudes; *Faculty Development; Foreign Countries; Higher Education; *Instructional Improvement; Program Effectiveness; Teacher Motivation; *Teacher Role; Teaching Methods
IDENTIFIERS *ASHE Annual Meeting; Faculty Attitudes; *University of Sonora (Mexico)

ABSTRACT

This study explored the impact of teaching improvement programs on university faculty participants in Mexico, as well as the factors that have affected the success of these programs. A total of 80 professors from the University of Sonora in Hermosillo, Mexico, completed a questionnaire on current teaching practices. The group included 40 former participants in four selected teaching improvement programs and 40 nonparticipants. The former program participants also completed a questionnaire on their past teaching practices. Eight program participants and eight nonparticipants also completed in-depth interviews and were observed in classroom situations. It was found that the teaching improvement programs had a moderate positive impact on former participants in four areas: conceptualization and self-awareness about teaching and teaching roles; motivations to become better professors; perceptions of the importance of pedagogical faculty development; and course design abilities. The impact was found to be hindered by the context as to where the programs and teaching took place, by limitations within the teaching improvement programs, and by the working conditions and motivations of participants. (Contains 26 references.) (MDM)

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Running head: OUTCOMES OF TEACHING IMPROVEMENT PROGRAMS

Outcomes of Teaching Improvement Programs for Faculty

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Paper to be presented at the 1998 Association for the Study of Higher Education

Annual Conference, Miami

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This paper was presented at the annual meeting of the Association for the Study of Higher Education held in Miami, Florida, November 5-8, 1998. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

Abstract

This study explores the impact that teaching improvement programs have had on former participants, and the factors that have affected the success of these programs. Based on a complex construct built upon Martinez's model (1991), and enriched with approaches from other authors, the researcher designed a multimethodological approach that combined quantitative and qualitative sources of data. The subjects in the first stage of the study were 80 university professors (40 former participants in 4 selected programs and 40 non-participants). Both groups completed a questionnaire on their current teaching practices. Former participants also completed a second questionnaire on their past teaching practices. For the second stage, 16 subjects from the original group (2 former participants per program and 8 non-participants) were purposely selected and in-depth interviews and class observation were conducted. In addition, interviews with university authorities, coordinators of the programs, and document analysis were performed.

The study found that teaching improvement programs have had a positive moderate impact on former participants in four areas : a) in the conceptualization and self-awareness about teaching and their teaching roles, b) on their motivations to become better professors, c) on their perceptions of the importance of pedagogical faculty development, and d) on their course design abilities. This impact was found to be hindered by the context as to where the programs and teaching took and take place, by limitations within the programs, and by the working conditions and motivations of former participants.

Outcomes Of Teaching Improvement Programs For Faculty

Faculty Development (FD), concerns the institutionally organized and supported efforts and mechanisms aimed to aid faculty members in their lifelong process of renewal and growth and to further develop in some or all of their various activities and roles.[1] These programs began to be systematically implemented in most western universities in the late 1960s and early 1970s (Centra, 1989; Falk-Nilsson, 1980; Gaff, 1979; Mack, 1983; Morales & McGinn, 1982; Schuster, 1990). From their beginnings to the 1980s, the number of faculty development strategies, centers, and participants experienced constant growth. In the late 1990s, even though the creation of new centers has been drastically reduced, the majority of the existing centers continue working.

The variety of angles from which FD has been studied is very ample. These studies have resulted in an increasing body of knowledge on topics such as: characteristics of the programs, ideological orientation of the programs, status of the faculty development centers, faculty vitality, faculty development and faculty evaluation, and outcomes of the programs (Bland & Schmitz, 1990).

Thus far, research has found that faculty who participate in Faculty Development Programs (FDPs) obtain benefits, such as an increased awareness of their teaching practices and assumptions, a greater knowledge about alternative instructional procedures, and an enhanced motivation towards excellence in teaching (Levinson-Rose & Menges, 1981). However, in spite of the human and monetary resources invested in the implementation of FDPs and the fact that many programs have as their main objective helping faculty improve their teaching abilities, there are few empirical

studies documenting the programs' impact on the teaching practices of professors. The literature does not, therefore, reveal conclusive evidence of the effects of FDPs on those matters or even a final summary judgment regarding their outcomes. Most of the reported studies on faculty development have been based almost exclusively on opinions or self-reports, such as surveys of reactions of participants and/or coordinators at the end of a particular event. Moreover, as in the case of other research projects on topics related to higher education, the majority of studies on FD have been conducted in and about developed countries (Spaulding et al., 1991). Little is known about FD in developing countries such as Mexico, even though this country has been one of Latin America's leaders in the advancement of educational research, as well as one of the first countries in the American continent — only slightly later than in the United States— to implement FDPs in its universities (Bravo, 1990).[2]

Based on the previous arguments, it is then reasonable to advocate for conducting more serious research on the outcomes of FDPs, especially in terms of their impact on teaching, and with more urgency in countries such as Mexico, where despite its leadership role and the fact that most institutions offer FDPs, little research has been conducted on the topic.[3] Without knowledge of the impact of FDPs, as Dunkin (1986) maintains, efforts to improve and/or redesign programs will have less chance of success.

The present study attempts to contribute to the generation of information regarding the results of FDPs, as well as to the enrichment of the theoretical field of FD by focusing on those FDPs offered in a Mexican university that had as their main

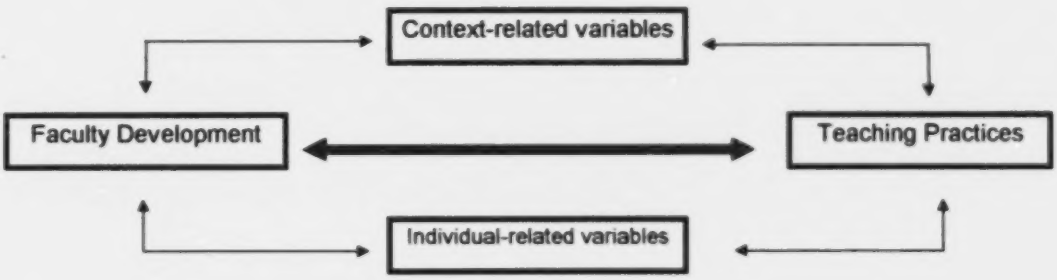
objective the improvement of faculty teaching practices. These programs were called, for the purposes of this study, *Teaching Improvement Programs* (TIPs).

The questions guiding this research were the following:

1. Have Teaching Improvement Programs affected the ways former participants design, conduct, and evaluate their courses?
2. What context, individual, and program-related factors have influenced the outcomes of Teaching Improvement Programs?

Conceptual Framework

The study was guided by a preliminary conceptual framework the central elements of which were based on a complex construct built upon Martinez's model (1991), and enriched with approaches from other authors and research findings. The framework can be graphically represented as shown in the following figure, and the complete model can be seen in Appendix 1.



According to the framework, as represented in the figure, the impact of FD on the teaching practices of former participants is influenced by the following: the social and institutional context where the programs are implemented (context-related variables); by the characteristics and working conditions of those who join the programs (individual-related variables); and by the characteristics of the FD programs

themselves (faculty development related variables). The double-arrowhead lines represent existing interrelationships among the variables and how each one influences and is influenced by the others.

Methodology

Research approach and data collection procedures

The field research was conducted between 1996 and 1997 at the University of Sonora (UNISON), a state university located in Hermosillo, Mexico, and the study focused on four TIPs offered by UNISON between 1991 and 1995. Thus, the conclusions of this study are limited to those programs.

The research approach used in the study was multimethodological and exploratory. Multiple instruments and sources of data, both quantitative and qualitative, were employed.

The collection of the data was organized in two stages. In the first stage, 80 university professors were included (40 former participants in the selected programs and 40 faculty members who had never participated in such programs). Both groups completed a questionnaire on their current teaching practices. Former participants also completed a second questionnaire on their past teaching practices. For the second stage, 16 subjects from the original group (2 former participants per program and 8 non-participants) were purposely selected. Personal, in-depth interviews, group-interviews with their students, and class observations were conducted. In addition, interviews with university authorities, coordinators of the programs, and document analysis were performed.

Data Analysis

As suggested by Yin (1989), the main strategy of data analysis employed in this project relied on the conceptual issues of the study. Thus, the variables established in the theoretical framework were used to guide the analysis. Basic descriptive statistics were determined for quantitative data, and content analysis was used for qualitative data. As shown in Appendix 2, the analysis of the data was performed in two major phases, that in turn corresponded to each one of the main research questions.

In the first phase, I analyzed data to respond to the first research question. This phase was in turn subdivided into three sub-phases. In the first sub-phase, data gathered from participants were compared with that of non-participants. In the second sub-phase, data gathered about former participants current and past practices and ideas were compared. Upon completion of the previous sub-phases, a final analysis was conducted, but this time by organizing the preliminary ones, further analyzing them, and delimiting the final categories and variables. Based upon these steps, the final analysis of the data was performed attempting to respond to the first research question.

In the second phase, the focus of the analysis was the second research question. This phase was subdivided into four sub-phases. The first three sub-phases corresponded to the factors that, according to the theoretical framework, could influence the impact of faculty development programs, namely: context - related, individual - related, and program-related factors. The last sub-phase corresponded to the final synthesis.

Findings And Discussion

Have Teaching Improvement Programs affected the ways former participants design, conduct, and evaluate their courses?

Analysis of the data collected suggested that after their participation in TIPs, former participants experienced important changes in their course design practices but only minor changes in their course implementation and evaluation practices. However, data analysis also suggested that participation in the TIPs studied is positively correlated to other changes such as those experienced by former participants in their concepts about teaching and their roles, and in their perceptions and attitudes toward teaching and faculty development.

In the following paragraphs, each one of the major specific findings related to the first research question is discussed in further detail.

1. After their enrollment in TIPs, former participants had better course design skills than they had before enrollment and than those of non-participants. Even though no significant quantitative differences were found between participants and non-participants regarding the variables related to course design, an analysis of a sample of the actual syllabi used by professors evidenced important differences between participants and non-participants in favor of the first group, in most variables. In addition, significant differences in most course design related variables were found between past and current practices of former participants, and most of them reported better skills in planning their courses as a result of their participation in the programs. Thus, it is reasonable to argue that participation in the TIPs studied had a strong and clear effect on the course design practices of former participants.

In the researcher's opinion, the central reason that explains why TIPs main impact on participants' teaching practices was on course design and not on course implementation and evaluation practices is that the workshops on course design were the ones that had the most favorable conditions for success, such as:

- Context-related factors: institutionally, course design-associated practices were among the most rewarded teaching-related activities.
- Program-related factors: workshops on course design included in the TIPs studied successfully included all the components that according to research conducted by Joyce and Showers, as cited by Guskey and Sparks (1991), appear to affect teachers' use of an innovation, namely: presentation of theory, modeling or demonstration, practice under simulated conditions, structured and open-ended feedback, and coaching for application.
- Individual-Related Factors: at the individual level, several factors seem to explain the success of workshops on course design. First, the design of the course is a task that in comparison to other innovations that professors are encouraged to try, is far more reachable and requires less extended effort because it is usually performed as a one-shot activity before the semester begins. Second, the design of a course requires tools that are relatively easy for a professor to access - at least once- such as books, journals, and computerized databases. Third, it seems easier for professors to discuss content-related issues with their colleagues and other experts than other teaching-related matters. Fourth, most professors' main strength and legitimacy is their content knowledge; thus they feel more at ease dealing with this type of knowledge. Fifth, at the end of the workshop, professors do have something

concrete that they can use in their courses; and finally, they receive an additional external stimuli for their efforts: points for promotion when they turn in their syllabi to their departments.

2. Participants also reported changes between their past and current course implementation and evaluation practices, but no differences were found between them and non-participants, and class observation did not confirm their reports about those practices.

What these apparently contradictory findings seem to indicate is that: (1) due to their participation in the TIPs, former participants did change, but only to a very modest degree – which explains the similarities between participants and non-participants, and (2) the changes occurred more at the conceptual than at the practical level and it is from the former where participants read their own current teaching practices, partially confounding what they do with what they wish to do —which explains the self-reported differences between their past and current practices. In other words, TIPs seem to have influenced what Argyris (cited by Zuber, 1992) called "the academics' espoused theory of teaching," but not their theory-in-use, at least not to the desired level.

3. After their participation in TIPs, former participants had deeper, richer, and more complex ideas about teaching and about their roles as professors than non-participants and than those they themselves had before enrollment in the programs. Former participants also reported an enhanced awareness and understanding of their role as professors as a result of their enrollment in the TIPs.

These findings seem to suggest that the TIPs studied, especially those promoted by the Office of Academic Development (OAD), have had a positive influence on the

ways former participants conceptualize teaching, particularly concerning those issues related to the factors involved in teaching, social role, theoretical bases, and ideological implications of teaching. TIPs also functioned as devices to raise consciousness for participants. All these influences were part of the objectives actively and deliberately sought after in the programs promoted by the OAD that appear to have been successfully achieved.

4. After their participation in TIPs, and compared with non-participants, former participants assigned greater importance to pedagogical faculty development and reported an enhanced motivation to become better professors. In addition, analysis of former participants' data about their past and current perceptions of the importance of teaching, of development on their discipline, and of the role of TIPs to improve teaching suggest a moderate positive correlation between participation in TIPs and such perceptions. However, available data do not allow me to attribute these last changes solely to the programs.

These findings indicated that one of the major achievements of the programs studied has been their consolidation as a valid and important mechanism for the development of faculty. In addition, participation in TIPs has played an important role in the enhancement of the importance that former participants assign to pedagogical knowledge as complementary knowledge needed to achieve excellence in teaching. The fact that former participants also reported significant growth in the values granted to development in their field makes it reasonable to argue that they see no contradiction between both types of knowledge, as seems to be the case of Mexican educational authorities, who in recent years have only emphasized the development of

faculty in their disciplines. Additionally, data analysis suggests that participation in TIPs not only affects their willingness to increase their disciplinary knowledge but enhances such will.

Considering the negative conditions that have surrounded the implementation of the TIPs studied – as will be discussed later— these findings appear to favor the programs strongly, especially in light of other research findings such as those of Alfano (1993) and Zuber (1992) who found that faculty perceptions and assumptions about FDPs are thought to influence the possible impact that FDPs will have on them.

Concerning the subjects' motivations to become better professors, the reported findings are consistent with those of other researchers: Eble and McKeachie (1985) who in a wider study documented the influence of FDPs on participants motivations; and, Ramirez (1994) who reported that faculty participation in FDPs and good teaching as a professor's goal were found to have a strong direct relationship.

What factors have influenced the outcomes of Teaching Improvement Programs?

Data analysis suggested that the outcomes of the TIPs on former participants have been influenced and/or hindered by a set of three variables: contextual, individual, and program-related.

At the contextual level, the influence of three factors was found to play a fundamental role in the potential outcomes of the programs, namely: the higher education national scenario; the institutional context that frames pedagogical faculty development and the possibilities of professors implementing the ideas promoted through the TIPs; and the institutionalization and quality of the general programs promoted by the center in charge of faculty development at the UNISON.

What was found was a context that hardly stimulates and supports not only the participation of faculty in these type of Faculty Development (FD), but the possibility of innovating faculty teaching practices. Faced with academic personnel who hold mostly undergraduate degrees and have little previous experience and training in academic matters, the national and the institutional policies have played most of their cards in increasing the numbers of professors with graduate studies by launching programs to support those full-time professors who want to pursue higher degrees. Thus, development in the academic field and pedagogical development have been placed in an antagonist, not complementary position. The problem with that choice is that the main activity of Mexican professorate is teaching and only a very reduced percentage of professors have had some sort of pedagogical training to perform their tasks. Additionally, despite the programs implemented to reward excellence in teaching, and despite the fact that teaching is the main activity of most Mexican academics, such activity is still seen as a second class activity in terms of prestige, rewards, and working conditions. Finally, the center in charge of FD at the UNISON is not embedded in the structure of the university and TIPs promoted by the center have attracted few participants.

At the individual level, two factors were found influencing the potential outcomes of the TIPs: the attitudes and motivation of participants during their enrollment in the programs, and their willingness and motivations to implement what they learned in the programs. A correlation was indicated by faculty developers between participants' reasons for enrolling in the programs and the type of roles and level of commitment assumed by them: those who join the TIPs to gain points for promotion tend to adopt

more passive roles and to show lower levels of commitment than those who enroll out of a genuine interest in the topics. But, even though these results should be treated with some caution (they are solely based on the faculty developers' opinions and the small size of the sample and difficulty in gathering unbiased responses did not allow the researcher to conduct more detailed analysis) it is reasonable to argue, based on the consistency of these findings with those of other researchers such as Martínez (1991), that the correlation between the attitudes and motivations of participants during their enrollment in the programs and their willingness and motivation to implement what they learned in the programs is a valid one, and thus, that participants' motivations do indeed influence the attitudes of participants during the programs, and as a result, the potential outcomes of the TIPs.

The orientation and quality of the programs was also found to play a potentially influential role in the TIPs' impact. A moderate correlation was found between the overall grade granted by former participants to the programs' design, implementation and evaluation, and the benefits reported by former participants and the impact of the TIPs on their teaching practices. In the researcher's opinion, these findings —despite their limitations—suggested that the programs themselves also matter and influence the success and impact of the programs. This opinion and the results of the current study are consistent with the researcher's suppositions stated in the theoretical framework about the role of the TIPs, and with those of several authors, such as Chehaibar (1994) and Zuber (1992).

Conclusions

The teaching improvement programs studied have had a moderate impact on those who have participated in them, especially in helping participants to enrich their conceptualization about teaching, their self-awareness about their role as professors, their motivations to become better professors, their perception of the importance of pedagogical faculty development, and their course design abilities. Such impact, however, has been hindered by the context in which TIPs and teaching have taken place, by limits in the programs themselves, and by the working conditions and motivations of former participants.

Therefore, teaching improvement programs can be a valid, worthy, and important strategy to achieve academic excellence, but further support is needed for them and for research about them, especially in those higher education institutions where teaching is one of the fundamental institutional concerns for the fulfillment of one of their main roles and responsibilities: the formation of the citizens needed for the next millennium, a task that can only be performed if institutions first take into account and invest in their most valuable resource, their professors.

REFERENCES

Alfano, K. A. (1993). Case Studies of California Community College A-B 1725 Faculty and Staff Development Programs. Unpublished doctoral dissertation, University of California, Los Angeles.

Bland, J. & Schmitz, C. C. (1990). An overview of research on faculty & institutional vitality. In Schuster J. H. & Wheeler D. W. & Associates. Enhancing faculty careers. San Francisco, CA: Jossey-Bass.

Bravo, M. M. T. (1990). Tareas educativas y formación de profesores universitarios en México. Analisis de la decada de los setentas. Perspectivas Docentes, No. 2. Mexico: Universidad Juarez Autónoma de Tabasco.

Centra, J. A. (1989). Faculty evaluation and faculty development in higher education. In J. C. Smart (Ed.), Higher education handbook of theory and research: Vol. V. (pp. 155-179). New York, NY: Agathon Press.

Chehaibar, E. et. al., (1997). Estudio comparativo de la formación docente en México. Mexico: CISE-UNAM, (Internal Document).

Chehaibar, L. M. (1994). Dos décadas en la formación de profesores universitarios. Una reconstrucción analítica. In: Aroche Sandoval, Susana (Ed.), La formación de profesores en las universidades públicas de los 90's. México: UNAM-ENEP-ARAGON.

Ducoing, P., Pasillas, M.A., Serrano, J.A., Torres, F.J., Ribeiro, L., & Pineda, I. (1993). Formación de docentes y profesionales de la educación. Estados del conocimiento. Cuaderno 4. 21/4. México: Congreso Nacional de Investigación Educativa.

Dunkin, M. (1986). Research on teaching in higher education. In M. C. Wittrock (Ed.), Handbook on research on teaching (pp.754-777). New York, NY: Macmillan.

Eble, K. E, & Mckeachie, W. J. (1985). Improving undergraduate education through faculty development. San Francisco, CA: Jossey-Bass.

Esquivel, E. & Chehaibar, L. (1988). Utopia y realidad de una propuesta de formacion de profesores (una experiencia de especializacion para la docencia). Cuadernos CESU 4, 49-58. Mexico.

Falk-Nilsson, E. (1980). Staff development and career stages. Staff development for the 1980s: International perspectives. England.

Gaff, J. G. (1979).The United States of America- toward the improvement of teaching. In David C. B. Teacher(Ed.), Staff development in higher education. Kogan Page, London / Nichols Publishing Co., N. Y.

Guskey, T. R. & Sparks, Dennis (1991). What to consider when evaluating staff development. Educational Leadership, 49(3), 73-76.

Hirsch, A. (1983). Panorama de la formacion de profesores universitarios en Mexico. Revista de la Educacion Superior, XII (46), 16-44.

Levinson-Rose, J. & Menges, R. J. (1981). Improving College Teaching: A critical review of research. Review of Educational Research, 51(3), 403-434.

Mack, David. (1983). An agreement on training university teachers: The U. K. experience. VESTES, 26(1), 31-38. Australia.

Martínez, R. F. (1991). Assessing the impact of a faculty development program on teaching quality in a Mexican university. AERA 1991 Annual Forum . Paper.

Miguel Aco, G. (1997). Análisis de la formación docente desde la perspectiva de los profesores de la Universidad Veracruzana. Memorias electrónicas del IV congreso nacional de investigación educativa. Área II sujetos y formación para la docencia, la investigación y la gestión (pp.15-20). Consejo Mexicano de Investigación Educativa - Universidad Autónoma de Yucatán. Mérida, Yucatán, Méx.

Morales, S. L. (1980). Diagnostico sobre los centros de formacion de profesores y su influencia a corto y largo plazo. Mexico: Paper presented at Simposio Sobre Alternativas Universitarias. UAM-Azcapotzalco.

Morales, S. L. & Mcginn, N. F. (1982). Faculty development in Mexican Universities. Journal of Higher Education, 53(5), 532-551.

Ramirez, J. L. (1994). Faculty development programs: a closer look in to participants institutional conditions and characteristics. Unpublished paper.

Schuster, J. H. (1990). The need for fresh approaches to faculty renewal. In Schuster, J. H. & Wheeler, P. W. (Eds.), Enhancing faculty careers. San Francisco: Jossey-Bass.

Spaulding, S., et. al. (1991). Research on higher education in developing countries: suggested agendas and research strategies. Pittsburgh, Pennsylvania: Unesco-U. of Pittsburgh Forum of Experts on Research on Higher. Final Report.

Weiss, E.; Ibarrola, M.; & Marquez, M. (1990). Evaluacion academica y del desempeño profesional de los egresados. Programa especializado en formacion docente para el sector tecnologico. Internal document. Mexico: DIE-CINVESTAV-IPN.

Yin, R. (1989). Case study research: Design and methods. Newsburg Park, CA: Sage Publications.

Zuber-Skerritt, Ortrun (1992). Professional development in higher education. A theoretical framework for action research. London: Kogan page.

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This paper is based on a doctoral dissertation presented at the University of California, Los Angeles. The study was supported in part by grants from the Mexican Natinal Council for Science and Technology (Consejo Nacional de Ciencia y Tecnologia) and from the University of Sonora.

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Footnotes

[1] Such efforts might include elements from any, some, or all of the following types of faculty development activities: personal development (activities designed to promote the growth and vitality of academics as individuals, such as interpersonal skills training, career planning, and therapy) ; organizational development (activities aimed at improving the institutional organization and environment under which faculty work, to engage faculty to respond to the needs and priorities of an institution, and/or to prepare faculty to perform administrative or organizational duties) ; professional development (activities that emphasize the growth and further expertise of academics in their discipline and/or primary professional fields, such as grants or sabbaticals which enable academics to pursue further specialization in their discipline or profession, and financial support that allows professors to attend conferences and to carry on research) ; and teaching improvement (defined in the introduction).

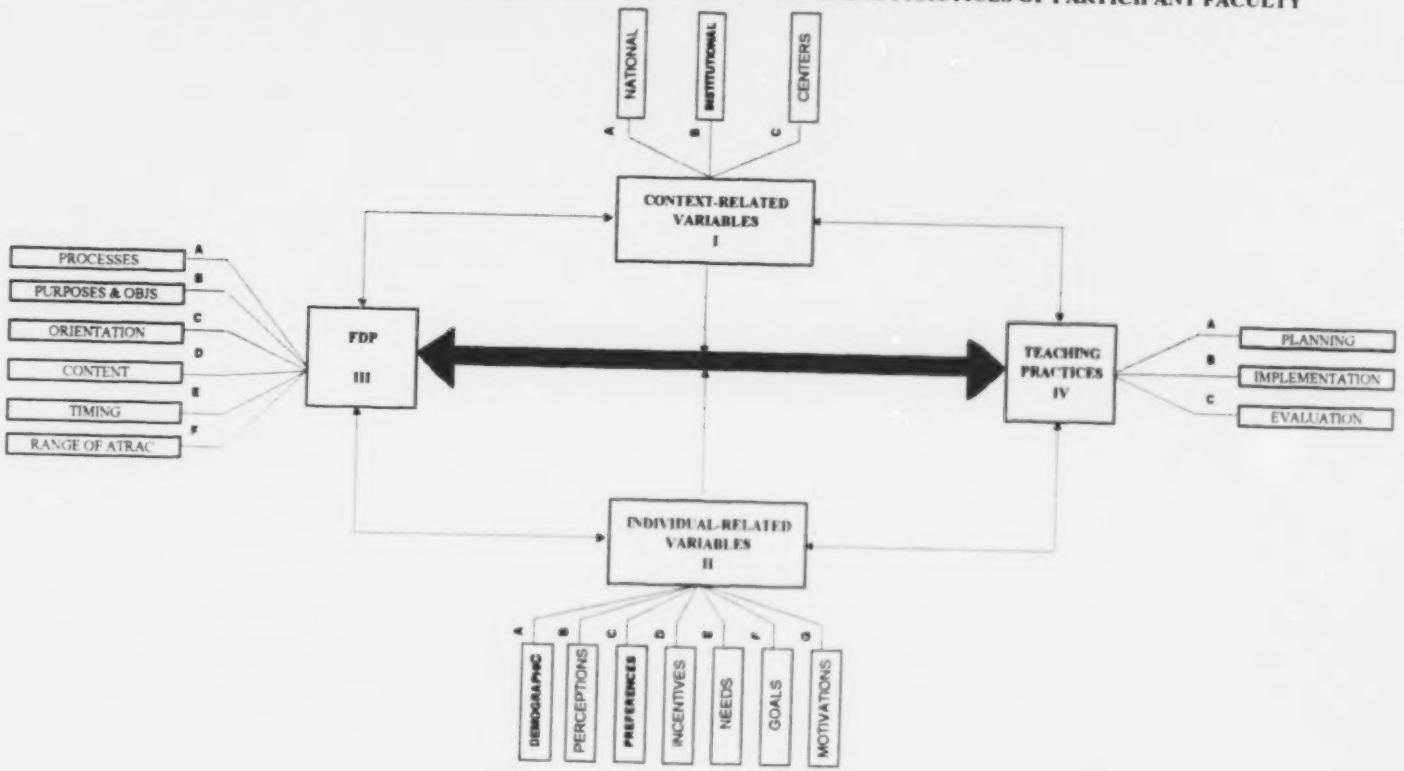
[2] From the late 1960s to the 1980s, Mexican higher education experienced unprecedented growth. The number of students in relation to population in the 20 to 24 year-old group grew from 2.6 in 1960 to 13.6 in 1980 (Chehaibar, L.: 1994). To respond to the increase in student enrollment more faculty members were hired. However, due to the urgency to hire new faculty, many of those who were contracted had not even completed the requirements to obtain the minimal professional degree in Mexico: *licenciatura* (similar to the B.A in the United States). To help new recruits to acquire some of the most elementary intellectual tools to perform their duties, many universities

began to offer faculty development programs for their personnel in the mid 1970's (Ducoing et al.:1993).

[3] Among the most interesting works are those by Chehaybar (1993), Hirsch (1987), Morales (1980), and at the national level. At a more local level, it is important to mention the works by Esquivel and Chehaibar (1988), Martinez (1991), Miguel (1997), Priego (1990), & Weiss et al., (1990), focused on the evaluation of specific institutional programs. However, with the exception of Martinez (1991), there were at the conclusion of this study no published reports of studies that reported approaching the problem of the impact of TIPs on the teaching practices of Mexican professors using research data other than that given by the participants and administrators.

APPENDIX A

SCHEMATIC MODEL OF THE CONCEPTUAL FRAMEWORK TO STUDY THE OUTCOMES OF FACULTY DEVELOPMENT PROGRAMS ON THE TEACHING PRACTICES OF PARTICIPANT FACULTY



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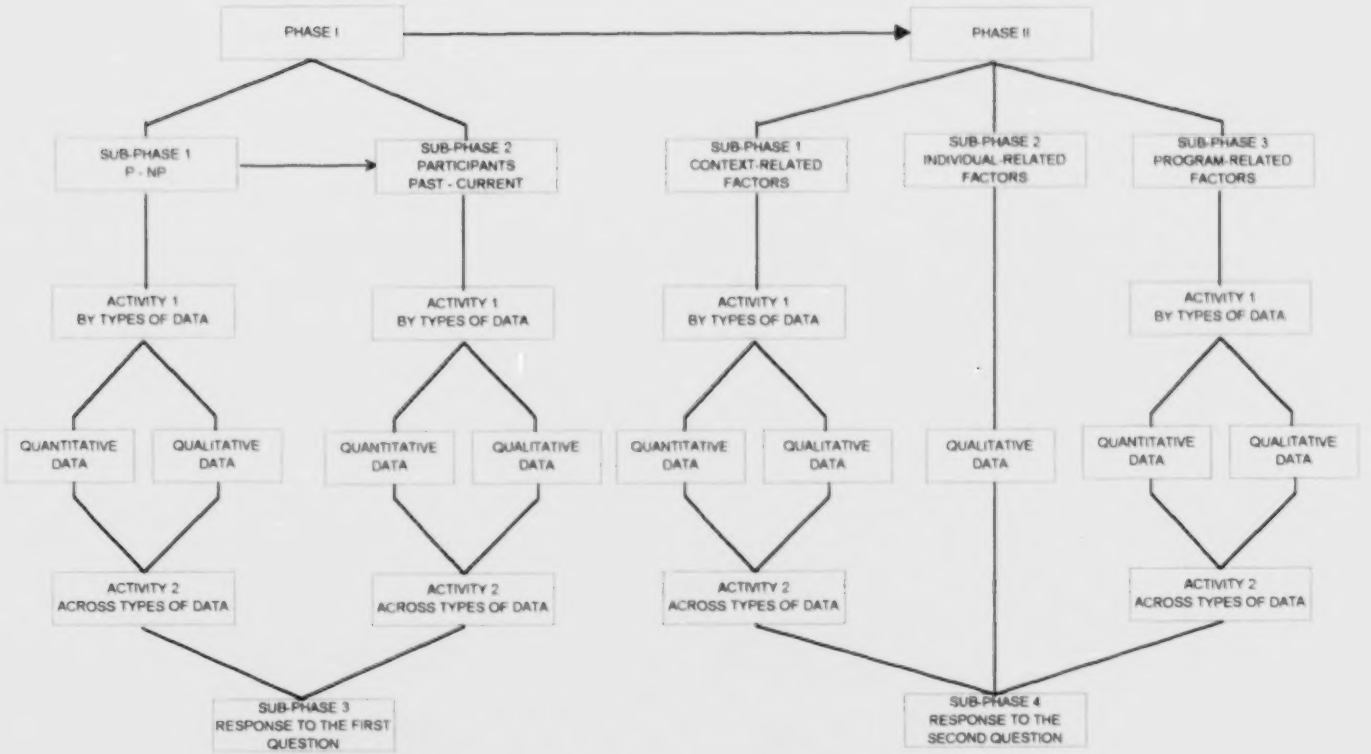
Appendix B
SCHEMATIC REPRESENTATION OF THE
ANALYTIC MODEL



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